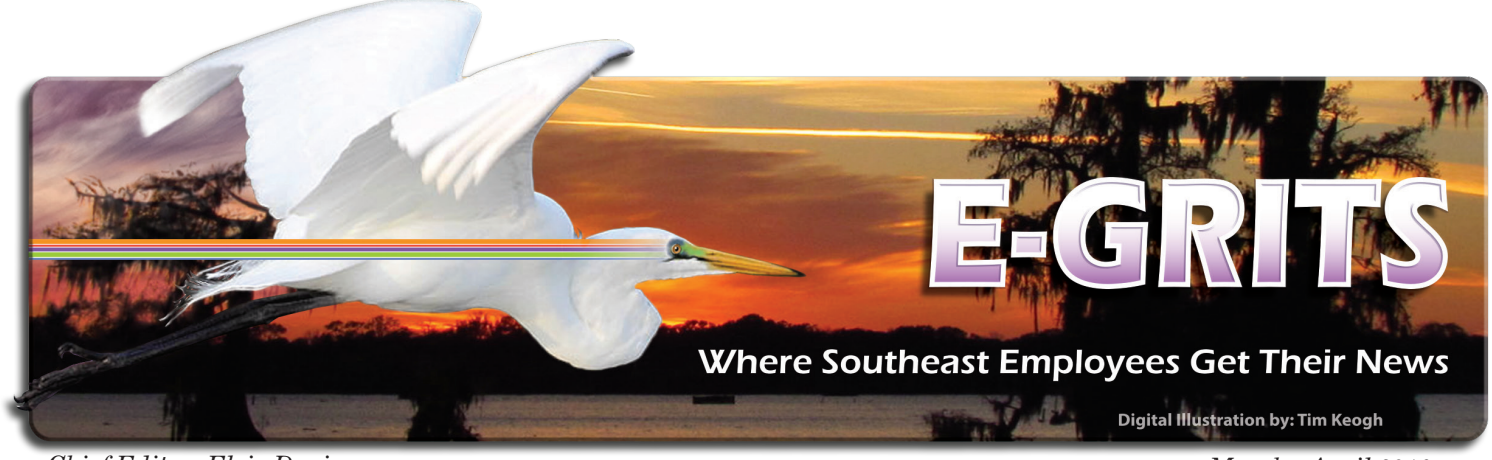

Chief Editor: Elsie Davis

March - April 2016

RD's Corner

Among the many great things about working for the Fish and Wildlife Service is our shared passion around conservation of our nation's fish, wildlife and plant resources and their habitats. No matter our job—from field biologist to public affairs specialist—the people in our organization tend to be of one mind when it comes to dedication to our conservation mission. We are in this to make a difference, for the resource and for people.

I began my career with the Service 18 years ago, and the passion I have for our work has not changed. What has changed over the past two decades is my understanding of what it will take for us to achieve our mission. More than ever, I am convinced that a sustainable future for our region's and our nation's wildlife resources is only possible if we deploy

Mark your calendar for Thursday, April 21, when the Regional Directorate Team will host a region-wide broadcast to release regional priorities developed by employees and leadership, and answer any questions you have. More details about the broadcast will be shared the week of April 11.

continued on next page...

Partnering across the Everglades to battle invasives

By Art Roybal, Vero Beach Ecological Services Office

It was 80 degrees on a winter day in Miami when several Service employees attended the state-sponsored Python Challenge kick-off event. The warmth reminded us why pythons and other nonnative, invasive species thrive in the Sunshine State and why the Service must continue to work with partners to curb their spread.
Florida is considered "Ground Zero" in America's fight against the spread of nonnative species. Florida has more nonnative reptile and amphibian species than anywhere else in the world. While the Burmese python has received wide public attention, they are just one of many reptiles, like Nile monitor lizards, various species of tegu lizards, chameleons, and an invasive frog settling into Florida's urban and natural landscapes. Some were released, and some escaped. These aliens can disrupt an area's food chain and prey on native fauna. For example, the relatively unknown Cuban treefrog, originally only found in extreme South Florida, has consumed native Florida frogs while spreading up the peninsula into Georgia. Battling invasive, exotic species is integral to successful ecosystem restoration and to the sustainability of South Florida's wondrous biodiversity.

Much of that battle is being waged by government agencies, tribes, nonprofit organizations, and universities which formed an alliance to manage Florida's invasive species in 17 distinct geographic regions called Cooperative Invasive Species Management Areas, or CISMAs for short. The Everglades CISMA (ECISMA)--a partnership in which the

Cuban tree frog, photo: Mark Yokoyama

Service is an enthusiastic participant--was created in 2008. Its major objectives include educating people to prevent the introduction of invasive species through education, formalizing areas of coordination and cooperation among land managing entities, and organizing a steering committee to provide regular oversight, recommendations, and updates to higher-level policy makers.

The Florida Everglades is one of the world's most unique natural and cultural resources and is also the focus of the world's largest ecosystem restoration effort. Unwanted biological invasions in the Everglades pose a significant threat to protected native ecosystems and associated species, the South Florida economy and human health. The Everglades diverse ecosystem is especially vulnerable to the introduction, invasion, and establishment of nonnative species because of its warm climate, the existence of major ports of entry, and the large-scale pet, aquarium, and ornamental plant industries active in the region.

In 2012, the ECISMA won the Department of the Interior "Partners in Conservation" award for outstanding conservation results through public-private cooperation and community engagement. The ECISMA's achievements in information/technology transfer and innovative outreach were singled out, including the development of web- and smart phone-based reporting applications and a 24-hour phone reporting system for invasive plants and animals,

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RD's Corner continued...

our dedicated, talented employees to work hand-in-glove with a multitude of others at the landscape-scale, basing our collective efforts on solid science. To be successful, we must have a clear, shared vision of where we want to be and by when, set priorities so we can get there, and measure our progress as a means of knowing when a course correction is needed. It is just that simple—and that hard.

It is simple because this business-like approach to success has proven itself in many public and private endeavors. It's hard because of the challenges that are confronting us as we seek to conserve the natural world in an era of unprecedented threats and changes.

Consider:

- Cities are getting bigger; rural communities, where wildlife had access to more undeveloped habitat, are getting smaller;
- Sea levels are rising, while storms are becoming shorter and more intense;
- Land use changes, as well as habitat loss and fragmentation, are increasing at a rapid pace;
- Invasive species are overtaking natural resources at an alarming rate;
- Poor water quality and competing demands for water are a growing challenge for people and for fish and wildlife;
- We as a people are increasingly disconnected from nature and the outdoors;
- The Southeast Region's population grew roughly 40 percent faster than any other region over the past 60 years, an indication of what is to come;
- The Southeast Region has, in part or in whole, four of the nation's 10 predicted mega-regions—geographic areas where, by 2060, more than half the nation's population growth and an estimated 65 percent of its economic growth will occur.

It is these very threats and changes that compel us to move forward with vigor and determination, carrying out a mission that remains unchanged while expanding our thinking of how we must go about it to achieve our goals.

Our Southeast Region FY16-FY18 Regional Priorities document, developed with input from our workforce, lays out that vision, its attendant priorities, and our conservation approach. I urge each employee to read it with a mindset of finding yourself and your work within it. Our three Regional priorities are crisp and clear:

- ☆ People
- ☆ Lands and Waters
- ☆ Fish, Wildlife and Plants

People begins with our workforce at the forefront, and our Priorities document spells out our commitments to them. It also includes our partners, who range from traditional state and federal agencies to our new Climate Science Centers. We put particular emphasis on partnering with a multitude of private landowners and landowner groups, enlisting their essential, voluntary contributions to conserving wild places and wildlife, even as they keep their "working lands working."

Lands and Waters is our emphasis on using a Strategic Habitat Conservation approach with our partners to address the many challenges we face by working smart at the landscape and waterscape scales. The lands and waters we manage through our refuges and hatcheries are the anchors in this approach. We will seek to connect them to key habitats—those special places—that are critical to mission accomplishment and to ensuring a wildlife heritage for generations to come. Our Landscape Conservation Cooperatives and our multi-partner Southeastern Conservation Adaptation Strategy are key elements in in how we will "connect the dots" across our lands and waters.

Fish, Wildlife and Plants is our commitment to remaining the world's premier conservation organization by managing fish, wildlife and plant populations according to whether they are declining, overabundant, or stable. Our strategies and our tools will take into account the status of species, e.g., if there are "too few," we will work with our partners and the public to use both the authorities and the agreements that are at our disposal to protect, recover and restore these species. If there are "too many," we will use the best science and techniques to address this threat to natural resources, showcasing our National Wildlife Refuges as demonstration areas. If they are "just right," we will continue to implement federal laws and work with our state and other partners to keep species populations stable.

To achieve success, priorities of every station and office must roll up into our regional priorities, just as our regional priorities roll up into our national Service priorities. No matter our program affiliation, we must act as an army of focused conservationists, headed in the same direction, if we are to win the battle for a sustainable future for wildlife and people. One staff person put it beautifully: "Rather than look at these priorities, I look through them. I see my work at the landscape scale, and I see the people I must involve and what I must do to help the species in measurable ways." Seeing our mission through the lens of our priorities allows us to respond seamlessly when new initiatives come our way. For example, monarchs are a multi-landscape species whose needs are shared by many other species. People are inspired by their beauty and are now engaging across the nation in their conservation.

Please explore our *Priorities* document on your own and with your colleagues. Our success in enacting these priorities hinges on the willingness of each of us to lead out in our corner of the Southeast Region. We have the honor and privilege of a leadership role in facing down and subduing the conservation challenges of our era. With unity of purpose and clarity in our priorities and approach, I believe we can prevail. ❖

– *Cindy*

Partnering Across the Everglades continued...

invasive species informational training programs and public outreach events such as Exotic Pet Amnesty Days.

"Biologists from Loxahatchee National Wildlife Refuge and the Vero Beach Ecological Services Office have been involved with ECISMA from the beginning," said ECISMA Co-Chair Dennis Giardina. "They've participated in rapid response workdays, helped craft our Early Detection Rapid Response Plan, and participated in outreach events like Pet Amnesty Days and the Everglades Invasive Species Summit."

As co-chair of the Early Detection and Rapid Response Subcommittee, I, Art Roybal, attend quarterly meetings to

continued on next page...

Partnering Across the Everglades continued...

discuss the latest invasive species concerns and represent the Service and ECISMA at the Department of the Interior's Everglades Restoration Initiatives Office to develop a comprehensive invasive species strategic action framework for South Florida.

In the Everglades region, policy makers and the public now realize that just getting the water levels right is not enough to achieve ecosystem restoration when invasive plants and animals remain uncontrolled, hampering restoration efforts. Combating invasive exotic species will be necessary for successful ecosystem restoration and preservation of natural biodiversity.

Inaction or delayed action is costly and usually results in long-term management of some invasive species. The ECISMA is aiding in the protection of one of our most unique natural resources, the Everglades, and the strong agricultural and tourism-based economy of South Florida by focusing on coordinated, strategic action against invasive species. Partnering at its best! ❖

Southeast Region plays key role in largest ever NRDA injury assessment

By Nanciann Regalado, NRDA

The Deepwater Horizon oil spill lasted 87 days and by the time the Macondo well was capped, more than 134 million gallons of oil had impacted more than 43,000 square miles of the Gulf of Mexico and its shoreline. Immediately after the spill began, hundreds of state and federal specialists and other researchers went to work on assessing the injury caused by the oil to natural resources and the services they provide. Some five years later, the Trustees released the Programmatic Damage Assessment and Restoration plan detailing key findings about wildlife injury and mortality resulting from the largest Natural Resource Damage Assessment ever conducted. The Southeast Region-based DOI Case Management Team is pleased to have the opportunity to describe a number of these findings in upcoming issues of E-Grits. If you'd like to know more about how the injury assessments were conducted and what they revealed, please be on the look–out for these articles. Our first article, which will appear in the May June issue of E-Grits, will focus on how the Service assessed injuries to migratory birds. ❖

Employee Spotlight

Keith Weaver: From tagging, tracking and naming, he knows the bears of the Tensas River basin

By Nadine Leavitt Siak, Gulf Restoration Program

Keith Weaver enjoys time in the great outdoors, away from the trappings of modern office life.

The Service delisted the Louisiana black bear in March. Keith Weaver of the Central Arkansas National Wildlife Refuge Complex played a key role in the bear's recovery.

We also congratulate Dr. Weaver for his section last month as the Refuge Association's 2016 Paul Kroegel Refuge Manager of the Year.

"My life consists of being on the computer, being on the phone, being in a meeting, or driving to a meeting," says Keith Weaver, the Project Leader for the U.S. Fish and Wildlife Service's Central Arkansas National Wildlife Refuge Complex.

This was certainly not the case in late 1987, when Weaver became involved with the Louisiana black bear as the wildlife biologist at Tensas River National Wildlife Refuge.

Back then Weaver collected data to help determine if the species qualified for listing as endangered or threatened. This involved everything from collecting blood and tissues samples from bears, to tracking them with collars, to tattooing numbers on their inner upper lips.

"They were a real mystery when we started," he says. "We knew bears existed on the national wildlife refuge and in the Tensas River basin. But that's all we knew … this was really ground-breaking work to just understand the life history and ecology of the bear."

"It was very unusual to ever see one back then," he recalls. "I can remember we bought 10 radio collars when we started out, and being worried we wouldn't be able to catch 10 bears."

In fact, between 1988 and 1991, Weaver and his colleagues trapped, released, and studied a total of 24 bears.

"It was pretty amazing," Weaver says. "You had this bear in hand, and after you released it, you still had a relationship with the bear -- so to speak -- because you were following its activities."

Weaver confesses that, although it's frowned upon in some scientific circles, he and his co-workers gave the bears names in alphabetic order, by when they were trapped. His favorites were "Betty Bear," and "Xeres" -- the last one caught. They never made it to Z.

Even though almost 30 years have passed, Weaver remembers how he felt catching the first bear for the endangered status assessment.

"We'd been trying to trap a bear for about a week, without any luck," he says. "We had a couple of snares that had been sprung, so we were a bit discouraged. And, of course, expectations were high. People were waiting. The pressure was on."

He says he came around a corner on the trail riding an ATV – and there was "Alpha."

"I felt a mixture of relief, of elation, of success," he recalls. "We were off to the races!"

continued on next page...

Employee Spotlight continued...
"Bears are charismatic creatures," Weaver says. "They have characteristics that people can relate to. They seem to be very gentle with their clubs, but they can at times be strict disciplinarians. Plus, they can stand up on two legs, which reminds us of us."

A major difference is that, luckily for them, their lives don't revolve around computers, phones, and meetings. ❖

Steve Ricks named Conservation Educator of the Year

By Connie Dickard, Mississippi Field Office, Jackson

Dr. Jessica Tegt nominated Steve Ricks to receive the Mississippi Wildlife Federation's 2015 Conservation Educator of the Year award, photo: USFWS

Stephen Ricks, field supervisor for the Mississippi Ecological Services Field Office, was named the Mississippi Wildlife Federation's 2015 Conservation Educator of the Year for his commitment and support of the Youth Environmental Science program. Steve received the award during the MWF's 56th annual Conservation Achievement Awards Luncheon in Jackson, Mississippi, on February 25.

The Youth Environmental Science program – called "YES!" – has been nationally recognized for teaching environmental and natural sciences through an interdisciplinary curriculum. YES!' unique approach introduces environmental science, technology, engineering and math, or STEM, to Mississippi students in the third through eighth grades. Recently, YES! relocated to the Larry Box Education Center at the Sam D. Hamilton Noxubee Wildlife Refuge.

Steve began his partnership with YES! in the fall of 2011, just as the program was getting started, and before it was nationally recognized or headquartered at the refuge. Steve helped YES! get off the ground. He devoted his time, allocated staff and resources, and encouraged other partners to join in bringing as many school children as possible through YES!' week-long conservation education program. YES! students study ecology, ornithology, forestry or forest products, earth science, and humans and the environment through hands-on experiments, outdoor lessons and field trips on the refuge. Steve played a part in the growth of YES! to a full-time, multi-subject, conservation-based education program that will serve about 3,500 students during this current school year.

"I have been awaiting an opportunity to publicly acknowledge Steve for his tremendous contributions of time and resources to YES! He has been instrumental in assisting our efforts to get kids outside while teaching them about science-related topics, said Dr. Jessica Tegt, YES!, director and Mississippi State University Extension Service assistant professor with the Department of Wildlife, Fisheries and Aquaculture. "I think he is among the few who truly understand how important conservation education is to the future of our natural resources."

In addition to being a champion for YES!, Steve has also shown strong support for interns. Teaming up with Mississippi State University, Steve provided the opportunity for three interns to work side by side with U.S. Fish and Wildlife Service staff on a range of projects such as fish sampling, private lands management and administration of section 7 of the Endangered Species Act. As a result of the internships, one student found his calling as a wildlife biologist and now has begun his master's work in wildlife management.

A fourth intern, part of Operation Warfigher, worked part time during last year at the Mississippi Field Office. He was recently hired full time as a biological technician while he continues to go to college and studies to become a biologist.

In the future, more interns are expected as Steve is currently in the developmental stages of starting another internship program, this time with Alcorn State University.

Steve volunteered the field office to have a Youth Ambassador Program in 2011, one of the first in the Southeast Region. The Youth Ambassador was a high school senior. She spent a year gaining conservation experience by participating with staff in Service activities. During her tenure at the field office, she was selected as the Mississippi Wildlife Federation's Youth Conservationist of the Year.

Through Steve's efforts, he has directed funding and supported conservation education for students from third grade to post doctorates. He also encourages field office staff to participate in a wide range of outreach education activities such as fishing events at national wildlife refuges in the state, the annual Endangered Species Day at the Mississippi Museum of Natural Science, Youth Education Day during the Great Delta Bear Affair, and many, many others.

Conservation education is just one of several things Steve is passionate about and does well – and it shows Congratulations to Stephen Ricks for being named Mississippi Wildlife Federation's 2015 Conservation Educator of the Year. ❖

What's Trending

By Katherine Taylor, External Affairs

Apps: Spring is here and that means time to get outside! *Yonder* is a free app that can help you plan your next outdoor adventure. It's designed for every level of outdoor enthusiast and will connect you to people, places and experiences.

#MostSharedStory: In March we shared a news release about a bald eagle that was killed in Kentucky. As with most wildlife investigation pieces, our followers were impassioned and wanted to help by sharing the story. The story ended up reaching over 33,000 Facebook users.

Social Media: Like many social media platforms before it, Instagram will soon be using an algorithm to personalize user's feeds with content based on relationships and interests. This means what people are seeing in their Instagram feeds will no longer be based on chronological order.

Nesting Magnificent frigatebirds at Key West NWR

By Trevor Watts, Florida Keys National Wildlife Refuge Complex

Magnificent frigatebirds are magnificent in many ways. The wingspan of these birds reaches more than seven feet, and has the largest wingspan-to-body weight ratio of any bird in the world. They also are one of the only seabirds in the world that is unable to get wet, as they lack sufficient oil glands to maintain waterproofing of their feathers. Because of this trait, Magnificent frigatebirds are kleptoparasites, also known as pirates in the animal kingdom, stealing food from other seabirds. These birds will often exhaust other seabirds in-flight until they regurgitate their most recent meal, which the frigatebirds will willingly take.

Female Magnificent frigatebird roosting on a mangrove island within Key West National Wildlife Refuge, photo: USFWS

Prior to each nesting season, adult males congregate at nesting locations in what is known as a lek, in an effort to attract females to the nesting site. As the nesting period draws nearer, the males will compete for their mates through an elaborate display. While female frigatebirds are soaring over the lek, the males will display from the top of the mangrove canopy by inflating their bright red throat poach, roughly to the size of a volleyball, and flail their wings all while tilting their bill towards the sky and calling out to the females above. Females use this display to select their mate, and will begin nest building soon after. Fledgling frigatebirds will stay in the care of their mother for six to nine months a year after hatching.

While thousands of non-breeding magnificent frigatebirds can be found across the coastlines of Florida and the Caribbean during many months of the year, there is now only one known breeding frigatebird colony in North America. Historic accounts have documented breeding activities within the Key West National Wildlife Refuge on Marquesas Key from the 1960's through the late 1980's, during which time the nesting colony was abandoned. These birds were thought to have left their colony due to human disturbance, and were soon after observed nesting within Dry Tortugas National Park, 45 miles west of Marquesas Keys.

Current efforts are in place to re-establish nesting frigatebirds within select islands of Key West National Wildlife Refuge through a social attraction and monitoring study. Refuge staff members and volunteers have partnered with Avian Research and Conservation Institute personnel to place fleets of frigatebird decoys within the mangrove canopy of each study site, mimicking the stages of pre-breeding and breeding behaviors. Each artificial colony has the added realism of audio from recorded frigatebird calls projected through a broadcast caller. This is the first season of a four-year study in the Florida Keys, yet through periodic observations conducted at the projects site, interest from live frigatebirds has already been observed. Refuge and Avian Research and Conservation Institute staff members will continue to monitor sites for several years. Through periodic observations, we hope to gain a better understanding of the nest site selection characteristics that these birds require, and potentially produce a new nesting colony!

Longleaf pine, photo: Keenan Adams, USFWS

Seeing the forest for the trees: The Service works through the Longleaf Pine Partnership

By Nadine Leavitt Siak, Gulf Restoration Program

The longleaf pine was once so abundant that it seemed like an inexhaustible resource – an ocean of green -- to early American settlers. In the Southeast, longleaf pine forests once covered more than 90 million acres. By the mid-1990s, however, only three percent or so of that acreage remained, much of it in parts of the Gulf Coast states such as the Florida Panhandle and sections of southern Alabama, Mississippi, and Louisiana. Not only has the bulk of the historic acreage been lost, but also much of the longleaf pine habitat that remains is fragmented, degraded, and of limited ecological, cultural and socio-economic value.

As a result, it should come as no surprise that more than 30 animal species that depend on longleaf pine forests are federally listed as endangered or threatened, and many more are considered to be at-risk. These include the red-cockaded woodpecker, the only woodpecker to make its home by boring holes exclusively in living trees; the eastern indigo snake, the longest snake in North America; and the gopher tortoise, whose burrows also provide refuge for about 360 other species. Longleaf pine forests also contain nearly 900 plants found nowhere else in the world. In addition to their important role in supporting wildlife, these forests provide high-quality timber and reduce excess nutrients and sediments in surface water that ultimately flows into the Gulf of Mexico.

A regional working group comprised of more than 20 diverse organizations formed in October 2007, under the leadership of the Service, the Department of Agriculture and the Department of Defense to tackle the challenge of reversing the decline in longleaf pine forests. Together, the group developed a focused, range-wide restoration approach that was detailed in a document entitled Range-wide Conservation Plan for Longleaf Pine. The conservation plan has as its overarching objective the increase of longleaf acres range-wide from 3.4 to 8.0 million acres in the Southeast by 2024.

In 2011, the Longleaf Partnership Council, a diverse 33-member group of stakeholders that includes the Service and representatives from federal and state agencies, non-profit organizations, academia, timber industry and landowners, was established to support the plan. The Longleaf Partnership Council coordinates the on-the-ground efforts of teams whose work covers areas that have a core of at least 100,000 acres of relatively intact longleaf forests (deemed "Significant Geographic Areas"). Partners have agreed to place greater emphasis on restoration efforts on these areas, which are typically located near National Wildlife Refuges, National Forests, military installations, State Forests and Heritage Reserves. Three are on the Gulf Coast, and many are found within the Gulf watershed.

In addition to reaching a consensus on these key areas for restoration, the Longleaf Partnership Council has overseen the standardization of definitions as well as the development of metrics for assessing forest conditions; the establishment of a common repository for new longleaf pine information; and the compilation of information related to longleaf pine restoration research and implementation that has been developed by institutions over the last 20 years. Projects spearheaded or co-led by the Service include the development of assessment tools to determine target conditions for longleaf forests, planting density guidance, annual Accomplishment Reports and short term planning documents called Strategic Priorities and Actions.

The restoration work based on these and similar efforts by the Service and its partners are making a difference. Recent monitoring reveals approximately 4.7 million acres of longleaf pine can now be found in Southeast, up from the low of 3.4 million that existed before the restoration plan was put into action.

Follow the Leader

A conversation with Gary Peeples, Asheville, North Carolina, Ecological Services Office Public Affairs Specialist

By Elsie Davis, External Affairs, and Gary Peeples

photo: Madeline Peeples

Q: How did you become interested in a career with FWS and natural resources? How many years have you been with the Service?

A: I was in my final year of college, as a journalism major, when I started to consider communications work outside the journalism world. I was interested in conservation, so I thought conservation communications would be a rewarding field. My first exposure to the Service came as a Student Conservation Association volunteer at Pea Island National Wildlife Refuge, and now I've been a permanent, full-time employee for nearly 15 years.

Q: Do you have a background in biology and Public Affairs or did you come to the Service with a primary background in Public Affairs?

A: I've a mixed background, with an undergraduate degree in journalism and graduate degree in forestry. Even before the Service, my work revolved around conservation communications, from working with Guatemalan farmers as a Peace Corps volunteer to helping write an urban forestry manual with the Forest Service.

Q: What do you enjoy doing most as a Public Affairs Specialist?

A: One of the benefits of being a field-based public affairs officer is I have the opportunity to get in the field with the biologists. What could be more fun that being out in the field with species experts, learning about our trust resources, and creating the photos, videos, and other tools that we then turn around and use to communicate about these plants and animals and our work to conserve them?

Q: What are some projects you initiated? Are you still doing the local radio show? If so, how long is the show? When does it air, and on what station?

A: To date, the projects I'm proudest of are helping establish Mountain Bogs National Wildlife Refuge; helping create an annual outdoor festival that gets all fifth-grade students in two counties exploring rivers in their communities; and helping start and manage our office' internship program. One of the more novel projects I do is a weekly, 90-second commentary on wildlife and wildlife news for one of our local public radio stations, WNCW. It airs every Monday morning at 7:30 a.m., and I'll occasionally have people tell me "You sound just like that guy that does the wildlife thing on the radio." To add a little extra value, I'm able to turn those recordings around and offer them as a podcast over the internet.

Q: What do you enjoy doing in your spare time?

A: I really enjoy drinking a nice cup of coffee on Saturday mornings, which I consider the most perfect time of the week. I also enjoy a touch of photography, but heck, everyone's a photographer these days. I'm in the midst of a multi-year effort to read James Joyce's Ulysses.

Gary's role in coordinating the CCA event for the sicklefin redhorse?

Background information on the Candidate Conservation Agreement:
In February, the Service's Asheville Field Office joined five other signatories including the North Carolina Wildlife Resources Commission; Duke Energy; Tennessee Valley Authority, The Eastern Band of Cherokee Indians, and Georgia Department of Natural Resources at an event to sign a candidate conservation agreement for the fish sicklefin redhorse. The sicklefin redhorse has been a candidate for listing under the Endangered Species Act since 2005, it is only found in the Little Tennessee River and Hiwassee River watersheds in Tennessee and Georgia.

Cooperators agreed to several annual efforts over the next 10 years, including:

- Collecting and fertilizing sicklefin redhorse eggs from the Little Tennessee, Oconaluftee, Tuckasegee, and Hiwassee rivers.
- Hatching and rearing the animals at the Service's Warm Springs National Fish Hatchery in Warm Springs, Georgia and the Conservation Fisheries, Inc. facility in Knoxville, Tennessee.
- Using these captive-reared fish to stock North Carolina and Georgia streams.

Several long-term endeavors also will be undertaken, including:

- Opportunities will be sought to expand stocking into areas currently inaccessible to the fish due to dams.
- Duke Energy will manage the company's reservoir levels and dam releases to decrease negative impacts to sicklefin redhorse, including minimizing downstream impacts when reservoirs have to be drawn down or sediment and debris removed.
- TVA will continue to implement commitments in TVA's Reservoir Release Improvement Plan and River Operations Study that facilitate multiple uses of the reservoir system in a manner that ensures protection of all aquatic life and enhances their populations.

continued on next page...

Leadership Quote:

The best way to have a good idea is to have a lot of ideas.
— Linus Pauling

Follow the Leader continued...

- Technical support will be offered to local governments, the U.S.D.A. Natural Resources Conservation Service, and citizen-based watershed groups to conserve and improve stream habitat.
- The Wildlife Resources Commission will manage Needmore Gameland, a 4,400-acre state-managed site along the Little Tennessee River, to conserve sicklefin habitat.
- The partnership's efforts will be evaluated by periodically surveying and assessing the sicklefin redhorse's distribution, abundance, and status.

Q: How do you as a Public Affairs Specialist prepare for an event like the one you led for the sicklefin redhorse?
A: Five organizations signed the CCA, so that's five organizations to coordinate on event planning, digital media, traditional media outreach, and Congressional outreach – often working with both biologists and public affairs or public relations staff. I had two things going for me – first I had worked with many of those people in the past and we shared good relationships that helped carry this forward; secondly we had great Asheville staff working on the project. Our staff biologists Bryan Tompkins and Jay Mays are just great guys and easy to work with.

Q: How far ahead do you start planning for the event and describe some of the steps you take?
A: Jay, Bryan, and I started planning in early December, as the CCA was finalized. The biggest challenge was the signing ceremony, because it required the greatest amount of coordination. The Eastern Band of Cherokee Indians was extremely helpful in securing a location, then the speakers fell nicely into place. Coordinating the other aspects, such as media outreach, were more straightforward because they didn't require convening a certain group of people at a particular location and time.

Q: Where was the event and how was the location chosen?
A: The event was at Harrah's Cherokee Casino Resort which sits in a watershed where the sicklefin redhorse is found and allowed greater engagement with the Eastern Band of Cherokee Indians. The sicklefin redhorse was historically an important fish to the Cherokee so we were really looking for ways to incorporate that cultural component into the event.

Q: What media attended?
A: At the event we had the Cherokee One Feather, the newspaper of the Eastern Band of Cherokee Indians, as well as a pair of local, weekly newspapers. Though they couldn't attend the event, the Asheville Citizen-Times, the area's largest newspaper, followed through with a Sunday, front-page feature on the CCA and other endangered species conservation issues, in what ended up being a five-page article.

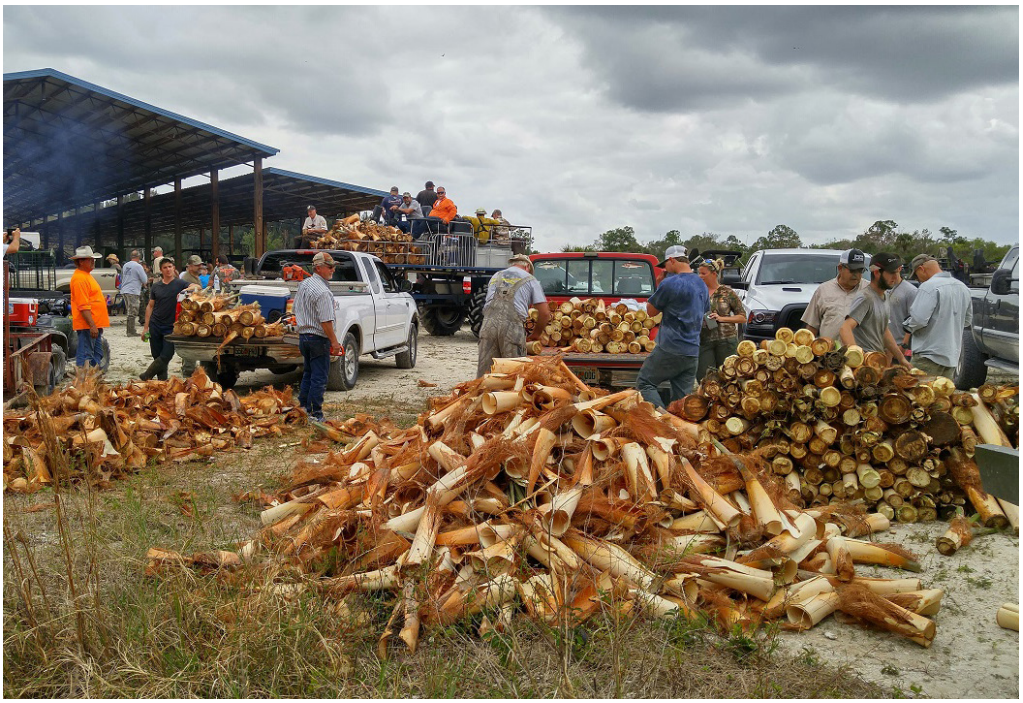
Q: Who were the main speakers?
A: Each signatory to the agreement had a speaker. For the Service it was Deputy Regional Director Mike Oetker; for the Eastern Band of Cherokee Indians, Vice-Chief Richard Sneed. Other speakers were Steve Jesters, vice president, water strategy, hydro licensing and lake services, Duke Energy; Jon Ambrose, chief, nongame conservation, Georgia Department of Natural Resources; Kyle Briggs, chief deputy director, N.C. Wildlife Resources Commission; Evan Crews, senior manager, natural resources management, Tennessee Valley Authority. Also, Russ Townsend, historic preservation officer for the tribe, and Bryan Tompkins, one of our biologists, said a few words. ❖

Bragging Rights

Community improves panther habitat

By Mike Elfenbein, Southwest Florida Gulf Coast Refuges

Swamp cabbage stew is considered a delicacy in South Florida; but, its source, cabbage palms, can become too plentiful at Florida Panther National Wildlife Refuge. Too many cabbage palms overshadow the grassy understory of the Florida panthers' slash pine flatwoods habitat. On Saturday, February 20, more than 100 Everglades Coordinating Council volunteers worked with refuge staff members to cut down about 450 cabbage palms. These palms were then donated to the 50th Annual Swamp Cabbage Festival in Labelle.



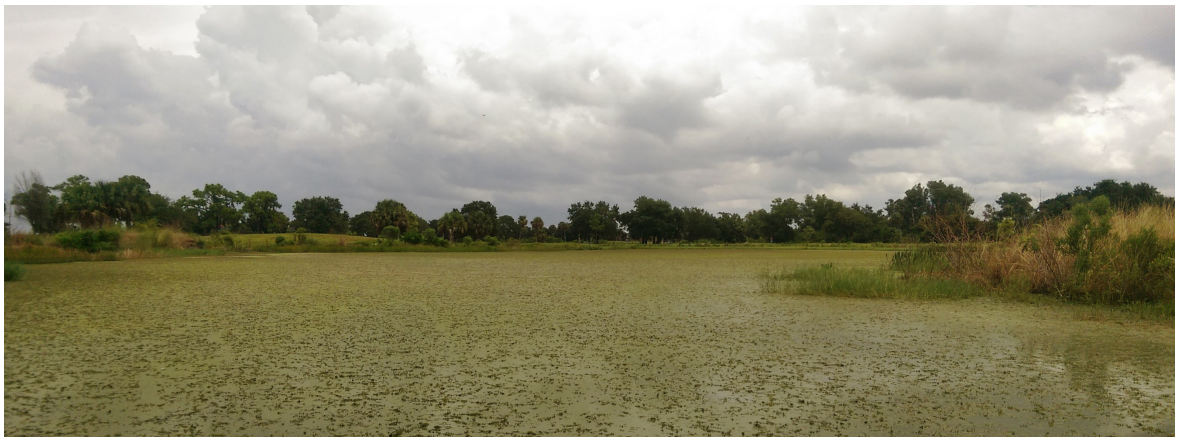
Cabbage palm hearts, photo: Jessica Sutt, USFWS

Young and old, men and women alike contributed to get the job done. Sportsmen provided equipment including saws, machetes, and ORV's. Sunbelt Rentals donated equipment, and others provided wild boar and venison to feed everyone involved. The refuge staff did an outstanding job at coordinating the event, and ensuring the safety of all participants. The relationships that were created and the conversations that were had will contribute greatly to the future successes of all of our natural resources.

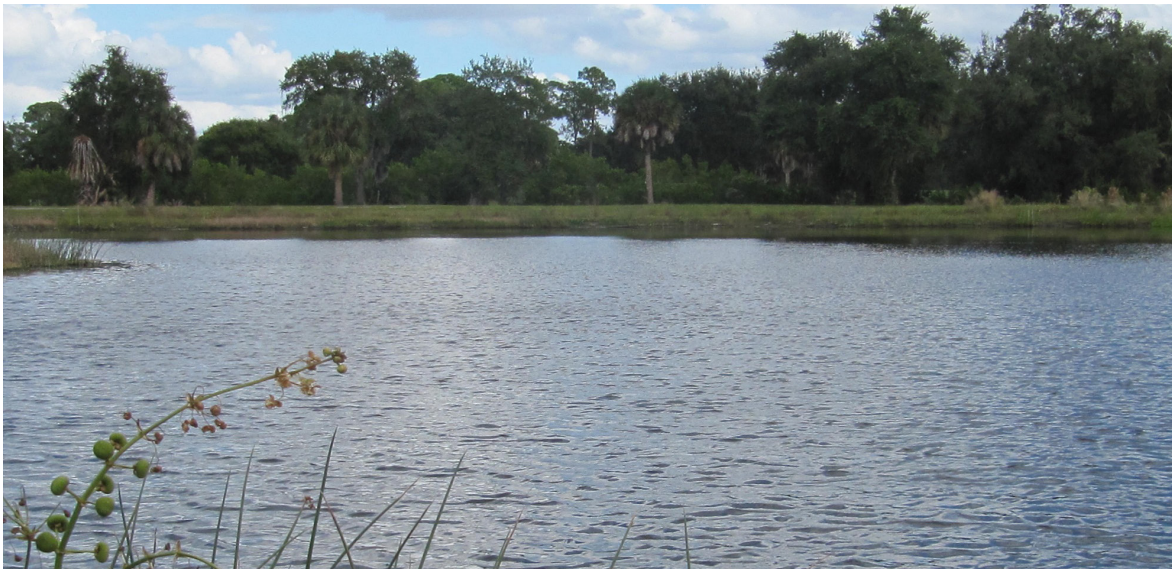
Partnership cleans Lake Lewis

By Ken Blick, Welatka National Fish Hatchery

Lake Lewis, located on MacDill Air Force Base, in Tampa, Florida, was overgrown with nuisance cattails and hydrilla. Shorelines were inaccessible to people and wildlife. Boating, fishing and kayaking opportunities were almost non-existent. In addition, the uncontrolled growth of the hydilla created a monoculture of this exotic, which in turn limited the growth of native aquatic plant species. The Air Force base and Welaka National Fish Hatchery began a cooperative effort in 2014 to recover the lake and promote conservation and recreational opportunities. Carefully administered chemical applications significantly reduced coverage of the highly invasive hydilla and opened shorelines allowing beneficial plant species to grow without competition. The lake is once again an asset to people and wildlife in the area. ❖



Lake Lewis before it was cleared, photo: Ken Blick, USFWS



Lake Lewis after, photo: Ken Blick, USFWS

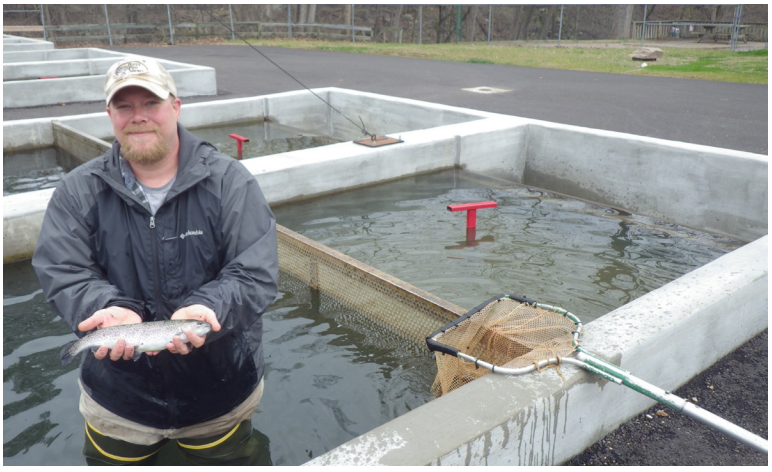
Student pursues interest in Fisheries at Norfork National Fish Hatchery

By Katy Smith, Norfork NFH

A chance encounter at a recruitment fair a few years back sparked an interest that has blossomed into a wonderful partnership at Norfork National Fish Hatchery. Jacob Raeber met an employee and learned about the unique career opportunities available with the Service for students of biology or wildlife management. At the time, he was unable to pursue the opportunity. Today, he is finishing his studies at Arkansas State University-Mountain Home. As part of the requirements for graduation, he needed to complete an internship. Norfork National Fish Hatchery fit perfectly.

Jacob has been working alongside hatchery staff members this spring cleaning tanks, feeding fish, and repairing equipment all while learning about the work it takes to care for approximately three million trout. His favorite part of the experience has been seeing all the fish swim toward him during feeding.

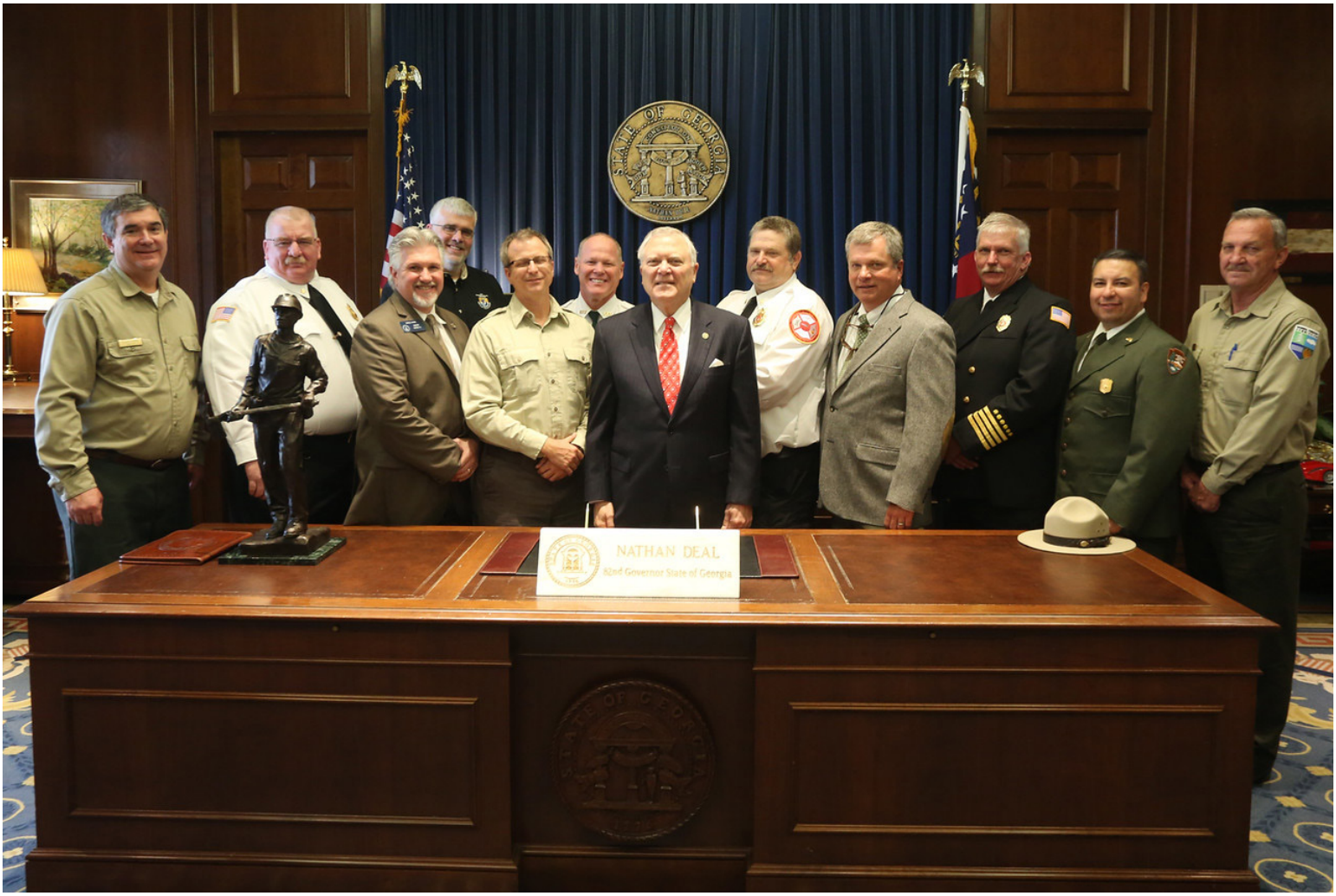
"I would like my nephews to grow up and fish the same waters I enjoyed as a kid," Jacob says. "The whole reason I went back to college was to have the opportunity to work for Fish and Wildlife."



Jacob Raeber shows a trout he caught while cleaning out the raceway settling basin, photo: USFWS

Jacob returned to school to study environmental law enforcement; but, after taking a course on fish biology, he decided to pursue a degree in fisheries management. Hatchery staff members are grateful for his assistance during the busy spring season, and they look forward to helping him achieve his goal of working for the Service.

"The days I come out here are the best days of my whole week," Jacob says. We couldn't agree more.



Georgia Governor Nathan Deal with representatives from the South Georgia-North Florida Fire Initiative, photo courtesy of Governor's Office.

Georgia Senate recognizes Georgia-Florida firefighting partners

By Susan Heisey, Okefenokee National Wildlife Refuge

Georgia lawmakers officially recognized representatives of the South Georgia-North Florida Fire Initiative with a prestigious national wildland fire management award. The South Georgia-North Florida Fire Initiative was honored at the Georgia State Capitol in February with a visit from Georgia Governor Nathan Deal, recognition in the senate chamber, and a resolution commending the group for winning the 2015 Pulaski Award. The Pulaski Award is presented by the National Interagency Fire Center for outstanding performance in the areas of interagency collaboration, cooperation, and coordination.

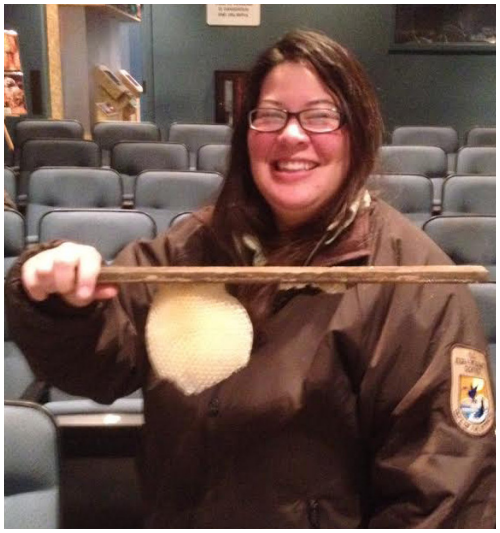
The South Georgia-North Florida Fire Initiative is a collection of organizations and businesses which include the Georgia Forestry Commission, Florida Forest Service, U.S. Forest Service, Osceola National Forest, Okefenokee National Wildlife Refuge, the Greater Okefenokee Association of Landowners (GOAL), the Nature Conservancy, the Conservation Fund, Coastal Wildscapes, and Fire Departments from Clinch, Charlton, Ware, and Baker Counties.

By providing a bridge for partnerships, the South Georgia-North Florida Fire Initiative acts as a pathway between state, federal, and local governments to engage and partner with private and commercial landowners, non-government organizations, and local organizations with an interest in wildfire protection.

For example, the group has participated in the formation of the Okefenokee Osceola Local Implementation Team (O2LIT), a partnership of federal, state, private, and commercial groups dedicated to landscape scale longleaf pine restoration. The O2LIT is a longleaf implementation team which strives to educate the public on the importance of fire in all aspects ranging from prescribed fire, wildfire suppression and preparedness in this unique landscape. In addition, thousands of acres of fuels treatment through prescribed burning and mechanical hazard fuel reduction projects have been completed, and thousands of longleaf pine seedlings have been planted.

Bee-keeping workshop held at the Sewee Visitor Center

By John Ptolemy, Cape Romain National Wildlife Refuge



Kelli Applegate displays a honeycomb, photo: John Ptolemy, USFWS

Charleston Community Bee Gardens hosted a honey bee workshop at the Sewee Visitor and Environmental Education Center where the group maintains an active apiary

Fifty-five participants attended the class in Awendaw that concentrated on both theory and the basics of hands-on beekeeping. Topics covered environmental threats to the honey bee, specific plant species dependent upon pollination and vital to human survival, tools and starter kits, and the "how-to" for individuals interested in starting a bee hive.

Upon completion of the course, a student must start a hive and pass a practical exam as a first step to becoming a certified beekeeper. Additional courses and activities such as teaching and mentoring can lead to Master Beekeeper or Master Craftsman certifications. With increasing rates of disease and environmental contamination and the decline of honey bees, community bee hives are becoming critical to protecting future bee populations.

The honey bee apiary at the Sewee Center is designed for safe viewing of the hives and interpretive programs are offered by journeymen beekeepers. For more information about the apiary and programs, please contact the Sewee Center at 843-928-3368 or visit the Center website at www.fws.gov/refuge/sewee_center. ❖

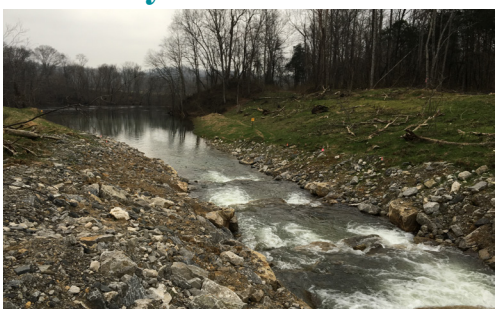
Great White Pelican visits "Ding" Darling Refuge

By Toni Westland, J.N. "Ding" Darling NWR

Great White Pelican, the large bird, at the refuge, photo: Judy Davis, refuge volunteer.

A Great White Pelican arrived at the J.N "Ding" Darling National Wildlife Refuge on Sunday, February 28. Its visit is even more unusual than the leap year! This is the rarest of sightings ever to be documented at the refuge. Native to Africa, the Great White Pelican blends with the native American White Pelicans that winter at the refuge except it is larger and has a massive 11-foot wingspan! It is unknown where this bird came from but birders from around the world hope it stays a long time. ❖

Wolf Creek debuts new Hatchery Creek extension



View of new stream facing upstream to migration barrier and original Hatchery Creek, photo: Moria Painter, USFWS

By Moria Painter, Wolf Creek NFH

Wolf Creek National Fish Hatchery in Kentucky has opened its extended Hatchery Creek. The extension of Hatchery Creek from less than 500 feet to more than a mile offers anglers a sight to behold. The stream provides diverse habitat for fish and wildlife and offers conditions favorable for trout spawning and nursery habitat to encourage natural reproduction of trout.

The new stream offers deep pools, fast riffles, open runs and wetlands sure to please wildlife of all shapes and sizes from tiny macroinvertebrates, to Rainbow, Brown and Brook trout, to the common fly fisherman. The improvements also extend to the original Hatchery Creek section below the hatchery with deeper and wider pools, an extended handicap accessible fishing area. and additional natural sitting area.

Hopes and dreams for the creek extension began over 20 years ago. Initially the projects intent was to improve water quality in both Hatchery Creek and the Cumberland River by minimizing erosion

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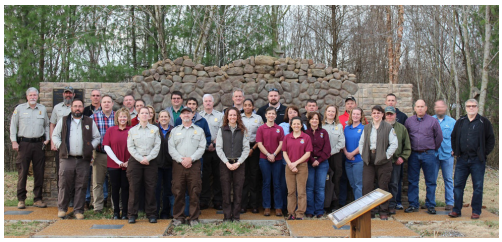
along the existing creek bed. Not only did the new stream achieve this goal but it well excided expectations of providing habitat for trout to reproduce.

The extension of Hatchery Creek was made possible through a partnership of the United States Fish and Wildlife Service- Wolf Creek National Fish Hatchery, the United States Army Corps of Engineers- Nashville District, and the Kentucky Department of Fish and Wildlife Resources. The construction of the creek was done by three Kentucky companies: Stantec, Ecogrow, and RidgeWater. ❖

Seventh annual Kentucky FWS Meeting

By Stacey Hayden, Clarks River National Wildlife Refuge



Employees from the Service's Kentucky Field Offices, photo USFWS

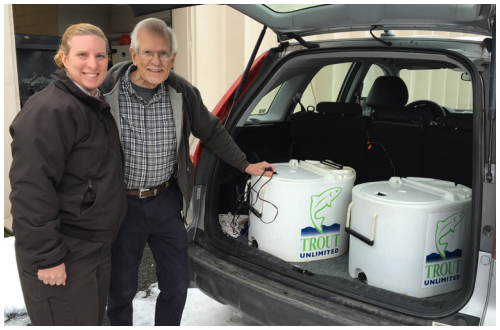
On March 1, Clarks River National Wildlife Refuge hosted the seventh annual meeting of Fish and Wildlife offices in Kentucky. This tradition started in 2009 to help encourage the "One Service, One Family" approach to conservation among Service programs. Service programs in Kentucky are the Frankfort Ecological Services Field Office, Wolf Creek National Fish Hatchery, Office of Law Enforcement Louisville Port/Kentucky's Special Agents, and Clarks River National Wildlife Refuge.

Thirty-two Service staff members shared ideas on how to work together better, highlighted recent accomplishments and discussed ongoing projects. New proposals included additional sharing of resources, monarch butterfly projects across the state, offsetting the Service's carbon footprint in Kentucky, and attending the Kentucky State Fair for outreach opportunities. Staff members also used the meeting to discuss the Junior Duck Stamp Contest, which has been a team effort between the stations since 2010.

The group made plans to participate in more cross program training. This spring, bird banding sessions will be held at Clarks River National Wildlife Refuge. In the summer, Ecological Services will conduct bat surveys. Staff members from other stations will be invited to both opportunities. ❖

Trout in the Classroom

By Moria Painter, Wolf Creek NFH



Moria Painter assists Bluegrass Chapter of Trout Unlimited President Bill Davig, photo: USFWS

For the past eight years Wolf Creek National Fish Hatchery has partnered with the local Bluegrass Chapter of Trout Unlimited in the Trout in the Classroom program. Wolf Creek provides eggs, sac fry, food, and technical advice to 24 schools throughout Kentucky. This year schools were provided with Rainbow trout or Brown trout.

The Trout in the Classroom program exposes students in Kindergarten through high school to hands-on learning and provides them with a taste for outdoor environmental education. The students participate in raising the trout throughout their entire life cycle; providing daily care of the habitat, monitoring water quality, feeding the fish and cleaning the tanks. By the end of the program, students get to release the fish into a state-approved stream near their school or within a nearby watershed. The students love this type of learning where they are not just reading something from the pages of a book, and statistics show that students that engage in hands-on learning retrain more of the information. By completing this program, students begin to foster a conservation ethic and begin to make connections to their lives with the natural world around them.

Wolf Creek National Fish Hatchery makes history by transporting 14,200 adult endangered mussels from Pennsylvania to Kentucky

By James Gray, Wolf Creek National Fish Hatchery

Getting mussels ready for transport to Kentucky, photo: USFWS

Last fall, Hatchery Project Leader James Gray and Fish Biologist Bob Clark transported 14,200 federally listed adult northern riffleshell (4,600) and clubshell (9,600) mussels from Pennsylvania to Kentucky. The mussels were quarantined for 30 days at Kentucky State University, tagged, and then released at several locations in the Licking River in Kentucky. Both species once occurred in the Licking River.

The mussels were collected from the Allegheny River under terms and conditions of a Section 7 consultation and Biological Opinion regarding the Hunter Station bridge replacement project. This area of the Alleghany has one of the highest populations for these two species. Mussels were placed in mesh bags and stacked on plastic bread trays inside the tank compartments. Kentucky anticipates additional mussels will be obtained next year. This is a rare opportunity to help in the recovery of these mussels by translocating large numbers of adults. Several years of monitoring will determine the success of this effort.

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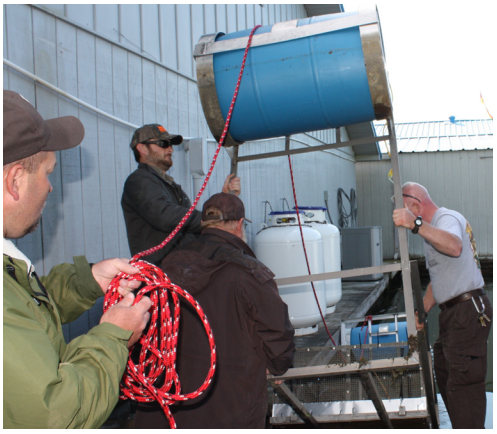
The unknown factor and major concern of the entire process was that never before had anyone ever hauled this number of endangered mussels for this length of time and distance. The mussels made the 500-mile and 10-hour trip in great condition.

The project was a success due to the coordination and partnership with Kentucky Department of Fish and Wildlife Resources Center for Mollusk Conservation, Kentucky State University Aquaculture, EnviroScience, Inc. and the Kentucky Ecological Services Field Office. ❖

Mussel propagation at Wolf Creek National Fish Hatchery

By Sheila Kirk, Wolf Creek National Fish Hatchery



Installing suspended cage apparatus for mussel propagation, photo: Moria Painter

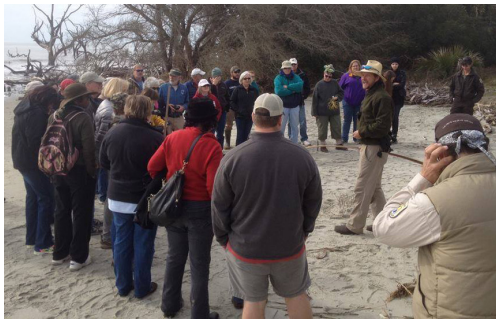
Wolf Creek National Fish Hatchery joined the efforts to propagate freshwater mussels using suspended cages in a reservoir. Last spring, glochidia were extracted from the gills of three female Painted Creekshell mussels and several Rockbass, the known host fish, were collected from a local stream. The glochidia were pipetted onto the gills of the larger Rockbass and smaller Rockbass were "batch infested" in buckets by suspending glochidia in water using air stones and allowing the fish to take in the glochidia and water through respiration. The infested host fish were placed into cages and these cages were then suspended in a protected area of Lake Cumberland in Russell County, Kentucky, at a location near the hatchery.

Each cage contained substrate for the juvenile mussels to bury into after transforming and dropping off the host fish. Six weeks after infesting the Rockbass, the host fish were released from the cages and the cages resuspended. Last fall, each cage was removed from Lake Cumberland and surviving juvenile mussels were collected and stocked into locations where Painted Creekshell mussels occur. Wolf Creek National Fish Hatchery extends their appreciation to the Kentucky Department of Fish and Wildlife Resources for assistance with mussel and fish collection and to personnel from the Tennessee Cooperative Fishery Research Unit and the Natchitoches National Fish Hatchery for their technical assistance with this project. ❖

Friends and Volunteers

Cape Romain National Wildlife Refuge Volunteer Appreciation Day

By Kelli Applegate



Chris Crolley, naturalist and steward of Coastal Expeditions, discusses the history and ecology of Bulls Island, with Boneyard Beach in the backdrop, photo: Will Christenson, Coastal Expeditions

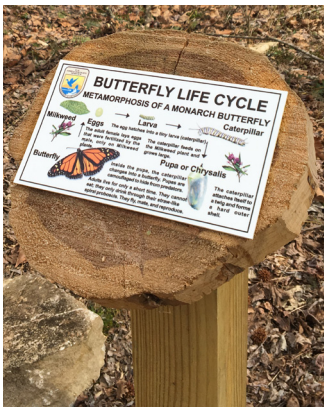
On January 31, 2016, Cape Romain National Wildlife Refuge hosted a Volunteer Appreciation Day to honor more than 170 individuals who selflessly donated over 16,000 hours of their time to the refuge and the Sewee Visitor and Environmental Education Center in 2015.

The festivities began with a ferry ride to Bulls Island, one of several barrier islands that constitute Cape Romain. The celebration continued with a guided auto tour around Bulls Island, followed by a potluck lunch at the Dominick House. Volunteers with milestone achievements were recognized by Tricia Midgett, Visitor Services manager. Volunteers included Jim Hawkins, who has logged more than 7,600 lifetime hours, and Rob Johnson, who has contributed almost 1,000 hours in 2015 for endangered red wolf education and interpretation programs.

Volunteers replaced roofs, built boat docks, repaired washed out roads, shored up flooded impoundments, and provided visitor information and interpretive and education programs at the Sewee Center. More than 6,070 volunteer hours were logged for loggerhead sea turtle management in 2015, and there is no doubt that the 80 percent hatch success rate is a reflection of the dedication of those volunteers. Cape Romain had a record number of 1,929 nests in 2015! With only seven full-time employees at Cape Romain, volunteers are the lifeblood ❖

Friends of Wolf Creek NFH Receives two Environmental Education PRIDE Grants

By Moria Painter, Wolf Creek NFH



New interpretive nature trail sign, photo, USFWS

The Friends of Wolf Creek National Fish Hatchery received two environmental education mini grants from Eastern Kentucky PRIDE. Each grant was $500. The first grant was used to purchase high quality, durable, waterproof fiberglass interpretive signs for an existing three-quarter-mile nature trail on Wolf Creek's grounds. These signs will be utilized for environmental education programs, as well as for the enjoyment of the general public. The second grant will be used to offer a free rain barrel workshop to 15 participants at the annual Earth Day event at Wolf Creek on April 23. This Earth Day celebration draws in hundreds of visitors each year. While not everyone will take home a free rain barrel, the Earth Day event is full of hands on activities, workshops, and programs for the entire family.

Loxahatchee marks 17 years of celebrating the Everglades

By Joseph Whalen, Loxahatchee NWR

For 17 years, Arthur R. Marshall Loxahatchee National Wildlife Refuge and its neighbors in Boynton Beach, Florida, have been celebrating the Everglades. We're not talking about protecting the integrity of an ecosystem. The refuge has been doing that since 1951. We're talking about singing about the Everglades, learning from it and celebrating that this wetland ecosystem of global importance is our ecosystem, the one we live in and the one we get our water from. Of course, the festival has changed over the years, adapting to the needs of our south Florida community.

After the festival's first year, the refuge recognized the need to implement a bus system with internal and external routes in order to accommodate demand for the event. Now, neighbors and local businesses graciously allow the refuge use of their extra space for parking to accommodate the influx of thousands of visitors for the event. Everglades Day has become the focal point of the refuge's public use calendar. The event and its lead up are covered by local newspapers and one local magazine even advertised the event in their publication at no cost to the refuge, telling staff, "This is my refuge too!"

This year's Everglades Day, themed Songs of the Everglades in honor of the 100th Anniversary of the Migratory Bird Treaty, was attended by approximately 3,500 people. Kids and families flocked to the refuge to ride in canoes, get their faces painted, fish, play environmental games, touch snakes and other native animals, eat good food and listen to music. Fourth graders enjoyed a special treat and were able to claim their Every Kid in a Park Passes that entitle them to free admission to federal lands for the school year.

Although the event is hosted annually by Arthur R. Marshall Loxahatchee NWR, partners from all over the region are involved. This year's headliners included Ron Magill from Zoo Miami and favorite-Florida musicians Dale Crider and Rod MacDonald. Cornell Lab of Ornithology chose Everglades Day to roll out their new Bird Sleuth curriculum, an inquiry-based science curriculum that engages kids in scientific study and real data collection through the Lab's citizen science projects. With representatives and speakers from Florida Atlantic University, the Seminole Tribe of Florida, South Florida Water Management District and the Florida Fish and Wildlife Conservation Commission, Everglades Day has come to show our community that this ecosystem is not represented by one refuge, park or agency. It has a life, it has songs, and its care is in the hands of us all. ❖

Spring is here!

Do you enjoy gardening or know someone in FWS who does? Send in your garden photos, and we"ll include them in the May-June issue. E-mail the photos with a short description, and a photo credit by May 24, 2016.